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3 San Francisco, California 94105

4
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
5 REGION 9

6 In the matter of:)
7 Jasco Chemical Corporation,)
Harry M. Anthony and)
8 Carol Jean Anthony)

9)
RESPONDENTS)

10 Proceeding Under the Comprehensive) Docket No. 89-01
11 Environmental Response, Comp-)
ensation, and Liability Act of 1980,)
12 as amended by the Superfund)
Amendments and Reauthorization)
13 Act of 1986, and the Resource)
Conservation and Recovery Act,)
14 as amended by the Hazardous and)
Solid Waste Amendments of 1984.)

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16 ADMINISTRATIVE ORDER

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2 I. JURISDICTION

3 A. This Order is issued pursuant to the authority vested in
4 the President of the United States by the Comprehensive Environ-
5 mental Response, Compensation, and Liability Act of 1980 (as
6 amended by the Superfund Amendments and Reauthorization Act of
7 1986) ("CERCLA"), 42 U.S.C. §§ 9601, et seq. The President
8 delegated this authority to the Administrator of the United
9 States Environmental Protection Agency ("EPA" or "Agency") by Ex-
10 ecutive Orders 12316, 46 Fed. Reg. 42237, and 12580, 52 Fed.
11 Reg. 2923. This authority has been further delegated to the As-
12 sistant Administrator for Solid Waste and Emergency Response and
13 the Regional Administrators by EPA Delegation Nos. 14-8-A and
14 14-14-C and redelegated to the Director, Toxics & Waste Manage-
15 ment Division, EPA, Region 9.

16 B. This order is also issued pursuant to the authority
17 vested in the Administrator of EPA by Resource Conservation and
18 Recovery Act § 3013(a); 42 U.S.C. § 6934(a). This authority has
19 been redelegated to the Director, Toxics and Waste Management
20 Division, EPA, Region 9.

21 II. STATEMENT OF PURPOSE

22 This Order requires Respondents Jasco Chemical Corporation
23 ("Jasco") and Harry M. Anthony and Carol Jean Anthony to perform
24 the following tasks:

25 A. To conduct the Remedial Investigation ("RI") described
26 in the Remedial Investigation and Feasibility Study Work Plan
27 Outline ("RI/FS Work Plan Outline"), a copy of which is attached
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1 as Attachment A and by this reference made a part of this Order,
2 in order to determine fully the nature and extent of contamina-
3 tion and the potential, for harm to the public health or welfare
4 or the environment caused by the release or threatened release of
5 hazardous substances, pollutants, or contaminants at or from the
6 Jasco Chemical Corporation, Mountain View, California facility
7 ("the Site"), as defined in Section III(A) below. The RI/FS Work
8 Plan Outline specifies work to be performed as part of the
9 Remedial Investigation, including sediment and water sampling,
10 soil core boring and sampling, monitoring well placement, ground
11 water sampling, pumping and aquifer tests. It also includes a
12 list of reports, documents, and other deliverables that Respon-
13 dents will provide for EPA review, comment and/or approval.

14 B. To conduct the Feasibility Study ("FS") described in the
15 RI/FS Work Plan Outline for evaluating remedial action alterna-
16 tives to prevent and eliminate the release or threatened release
17 of hazardous substances, pollutants, or contaminants at or from
18 the Site.

19 C. To undertake all actions required by the terms and con-
20 ditions of this Order in accordance with the provisions of
21 CERCLA/SARA and the National Contingency Plan, 40 C.F.R. Part
22 300, as amended.

23 III. FINDINGS OF FACTS

24 A. The Jasco facility is a chemical blending and packaging
25 plant where a wide variety of products have been formulated
26 since the 1970's. Among the products manufactured at Jasco are a
27 variety of solvents, wood finishers, adhesives, sealers and pre-

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1 servatives. The plant is located at 1710 Villa Street in the City
2 of Mountain View, California. The owners of the property are
3 Harry M. Anthony and Carol Jean Anthony. The property is iden-
4 tified as Parcel B as shown on the Map of the Lands of Tibbs, re-
5 corded on November 5, 1976. The Map of the Land of Tibbs is a
6 map of parcel 1 and parcel 2 of Lot 7. Lot 7 is shown on the Map
7 of the Subdivision of the Property of Messrs. Castro and Cal-
8 deron, being part of the Rancho Pastoria de las Borregas, re-
9 corded on August 29, 1879. The 2.037 acre site consists of a
10 1.330 acre vacant lot and 0.707 acres where the chemical blending
11 and packaging plant is located. The site is situated in a
12 residential area with some nearby residences and commercial es-
13 tablishments.

14 B. The 2.037 acre facility has been used by Jasco as a
15 chemical blending and packaging plant since its acquisition from
16 Tom N. Tibbs Co. in 1976. Mr. Tibbs leased the property and
17 facility to the West Coast Door Corporation from May 1954 through
18 June 1974. Operations consisted of manufacturing and painting
19 commercial and residential doors. The site was vacant from 1974
20 through November 1976. Prior to 1954 it does not appear that the
21 site was used for industrial purposes.

22 C. The facility handles and stores numerous chemicals on-
23 site in underground tanks, 55 gallon drums, and other containers.
24 Methylene chloride, paint thinner, denatured alcohol, methanol,
25 kerosene, lacquer thinner, acetone, pentachlorophenol, and diesel
26 fuel are or have been stored in underground tanks. Other chemi-
27 cals are stored onsite in both covered and exposed storage areas.

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1 D. Regulatory agencies first became aware of the
2 groundwater problem at the Site in January, 1983 after a citizen
3 complained to the California Regional Water Quality Control Board
4 ("Regional Board") that the facility was dumping solvents at the
5 rear of the Site on a daily basis. There is a drainage swale, or
6 depression, located in the rear of the Site, in the area where
7 the citizen reported dumping by Jasco. This drainage swale
8 receives surface runoff from the front of the facility by way of
9 a pipe that runs from a surface drain to the swale. Most of the
10 contamination at the Site appears to be located in the area of
11 this swale at the rear of the facility. Other than the citizen
12 complaint, which alleged that the release was due to dumping of
13 solvents, there has been no satisfactory explanation for the con-
14 tamination.

15 D. As a result of the citizen's complaint, the Regional
16 Board requested Jasco to install a monitoring well to determine
17 whether the Site was contaminated. Jasco's first monitoring well
18 installed in May 1984 showed the presence of paint thinner,
19 acetone and methanol in the groundwater at that time. A subse-
20 quent sample in April 1985 showed the presence of pen-
21 tachlorophenol and methylene chloride.

22 E. In August 1986 Jasco installed the second monitoring well
23 at the north side of the facility adjacent to the drainage swale.
24 Composite soil sampling results included paint thinner at 1,200
25 parts per billion (ppb) and pentachlorophenol at 200 ppb. A
26 ground water sample obtained from this well was found to be con-
27 taminated with methylene chloride at 3,200 ppb and pen-

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1 tachlorophenol at 1.5 ppb.

2 F. In November 1986 Jasco installed the third monitoring
3 well. Composite soil samples were found to be contaminated with
4 methanol at 5,800 ppb; acetone at 1,800 ppb; and isopropanol at
5 2,500 ppb. Ground water samples from the well showed contamina-
6 tion including methylene chloride at 142,000 ppb; methanol at
7 2,700 ppb; and pentachlorophenol at 50 ppb. Soil samples ob-
8 tained from the back fill over the underground tanks were con-
9 taminated with acetone at 2,190,000 ppb; lacquer thinner at
10 280,000 ppb; and methylene chloride at 77 ppb.

11 G. In December 1986 Jasco conducted a soil gas survey at and
12 near the Site. The results indicated that methylene chloride and
13 1,1,1-trichloroethane were the most widely distributed con-
14 taminants, both onsite and adjacent to the Site. The results in-
15 cluded methylene chloride at 370,000 parts per billion (ppb);
16 xylene at 160,000 ppb; toluene at 94,000 ppb; 1,1,1-
17 trichloroethane at 7,700 ppb; benzene at 2,200 ppb;
18 tetrachloroethylene at at 82 ppb; and trichloroethene at 8 ppb.

19 H. That same month, the Regional Board advised the City of
20 Mountain View of the soil and groundwater at the Site. The City
21 of Mountain View temporarily shut down a municipal water supply
22 well located 1500 feet from the site.

23 I. Further sampling conducted since that time has continued
24 to show high levels of hazardous substances such as acetone,
25 methylene chloride, and trichloroethylene in soils, groundwater
26 and surface waters at the Site. Investigations conducted by Jasco
27 under order by the Regional Board have discovered 1,1-

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1 dichloroethane, 1,1,1-trichloroethane, 1,1-dichloroethylene,
2 methylene chloride, chloroethane, 1,2-trans-dichloroethylene,
3 chloroethylene, toluene, carbon tetrachloride, xylenes, ethylben-
4 zene, 1,2-dichloroethane, tetrachloroethylene, chloroform,
5 trichloroethylene, and other chemicals at or near the Site.
6 These chemicals have been discovered in either the soil, the
7 ground water, or in some cases both the soil and the ground
8 water. These results, and information concerning the health ef-
9 fects of the hazardous substances, are summarized in Attachment
10 A, attached and hereby made a part of this Order.

11 J. On August 3, 1987 the Regional Board issued Cleanup and
12 Abatement Order No. 87-094 to Jasco, requiring remediation
13 measures and the preparation of a remedial investigation/
14 feasibility study. Jasco has only partially complied with
15 Regional Board requirements under the Order. Among other mat-
16 ters, Jasco delayed in reporting high levels of surface water
17 detected at the Site (e.g., 1300 ppb methylene chloride) from Oc-
18 tober 1987 until February 1988. In April 1988 the Regional Board
19 sent Jasco a letter detailing its noncompliance with the Regional
20 Board Order. Acting under the Regional Board order Jasco has
21 removed some contaminated soil and has been pumping out some con-
22 taminated groundwater.

23 K. On June 24, 1988 EPA proposed the inclusion of the Site
24 on the National Priorities List of the most contaminated sites in
25 the country. The Site received a hazard ranking score of 35.36.

26 L. Depth to ground water is 22 to 35.5 feet. The City of
27 Mountain View has at least two municipal drinking water supply
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1 wells in close proximity to the Site. One drinking water well,
2 which the City of Mountain View temporarily closed because of the
3 health threat from the Site, is only 1500 feet from the Site.
4 These wells contribute to a distribution system which serves ap-
5 proximately 40,000 people.

6 M. The property on which the Site is located has been
7 zoned for residential use beginning approximately 1995.

8 N. Permanente Creek, a perennial stream is located ap-
9 proximately 600 feet from the Site. Permanente Creek flows into
10 San Francisco Bay. Surface waters downstream of the Site have
11 beneficial uses including water recreation, cold fresh water
12 habitat, wildlife habitat and fish spawning.

13

14 IV. CONCLUSIONS OF LAW

15 A. The Site is a "facility" as defined in Section 101 (9)
16 of CERCLA, 42 U.S.C. § 9601 (9).

17 B. Jasco is a "person" as defined in Section 101 (21) of
18 CERCLA, 42 U.S.C. § 9601 (21).

19 C. Harry M. Anthony and Carol Jean Anthony are "persons" as
20 defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

21 D. Chemicals and their constituents found in the soil and
22 ground water at the Site are "hazardous substances" as defined
23 in Section 101 (14) of CERCLA, 42 U.S.C. § 9601(14).

24 E. Chemicals released at the Site and found in the soil and
25 groundwater are "hazardous wastes" as defined in Section 1004(5)
26 of RCRA, 42 U.S.C. § 6903.

27 F. The past, present, and potential migration of hazardous
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1 substances from the Site constitutes an actual or threatened
2 "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. §
3 9601(22).

4 G. Jasco is the operator of the Site and is a responsible
5 party pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

6 H. Harry M. Anthony and Carol Jean Anthony are owners of
7 the Site and are responsible parties pursuant to Section 107(a)
8 of CERCLA, 42 U.S.C. § 9607(a).

9 I. Respondents are jointly and severally liable for com-
10 pliance with this Order.

11 V. DETERMINATIONS

12 Based on the Findings of fact and Conclusions of Law set out
13 above, the Director, Toxics and Waste Management Division, EPA
14 Region IX, has determined that:

15 A. The release or threatened release of hazardous sub-
16 stances from the Site may present an imminent and substantial en-
17 dangerment to the public health or welfare or the environment.

18 B. The presence of hazardous waste at the facility may
19 present a substantial hazard to human health or the environment.

20 C. In order to properly ascertain the nature and extent of
21 the hazard posed by presence of hazardous wastes and the release
22 or threatened release, and to select a remedy which mitigates the
23 release or threatened release, a remedial investigation/
24 feasibility study must be completed for the Site.

25 D. The actions required by this Order are reasonable and
26 necessary to protect the public health, welfare and the environ-
27 ment, and, if properly performed are consistent wiht the National
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1 Contingency Plan, 40 C.F.R. Part 300.

2 VI. WORK TO BE PERFORMED

3 All response work performed pursuant to this Order shall be
4 under the direction and supervision of a qualified professional
5 engineer or a certified geologist with expertise in hazardous
6 waste site investigation. Prior to initiation of site work,
7 Respondents shall notify EPA in writing of the name, title, and
8 qualifications of such engineer or geologist and of any contrac-
9 tors and/or subcontractors to be used in carrying out the terms
10 of this Order.

11 It is hereby ORDERED that the following work shall be per-
12 formed by Respondents:

13 Required Deliverables or Actions

14 A. Summary of Work to Date. Within thirty (30) days of the
15 effective date of this Order, Respondents will provide to EPA for
16 review and comment a draft report identifying each of the tasks
17 listed below that Respondents have already completed, and giving
18 a precise date and title for each of the existing documents that
19 reports completion for each completed task. The RI/FS Work Plan
20 (Attachment B), a copy of which is attached to this order and
21 hereby made a part of this order, describes the listed tasks in
22 greater detail:

23 a) Quarterly Ground Water Monitoring Reports

24 (1) Analytical data summary and analysis

25 (2) Regional maps of well locations, including ap-
26 propriately scaled and detailed base maps showing the location of
27 all monitoring wells and extraction wells and identifying ad-
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- 1 jacent facilities and structures
- 2 (3) Summary of past quarter's Monthly Reports
- 3 (4) Laboratory reports
- 4 (5) QA/QC documentation
- 5 (6) Updated water table and piezometric surface maps
- 6 for all affected water bearing zones
- 7 (7) Cross-sectional geological maps describing the
- 8 hydrogeologic setting of the Site
- 9 b) Preliminary Site Characterization Summary
- 10 c) Remedial Investigation/Feasibility Study Workplan
- 11 d) Health and Safety Plan
- 12 e) Phase I Sampling and Analysis Plan
- 13 f) Phase I Ground Water Report, containing:
- 14 (1) Well installation details:
- 15 - Summary of investigative activities
- 16 - Site plan maps indicating well locations
- 17 - Analytical data summary and short discussion
- 18 - Laboratory reports
- 19 - Pumping test results
- 20 - Drilling logs, well development logs, depths
- 21 of completion and screened intervals
- 22 - QA/QC documentation
- 23 (2) Phase I Ground Water Report details:
- 24 - Analytical data summary and short discussion
- 25 - Laboratory reports
- 26 - QA/QC documentation
- 27 - Pump test analyses
- 28

- 1 - Geologic cross sections
- 2 - Site plan maps indicating well locations,
- 3 water surface elevation contours and
- 4 contours of contaminants, if any
- 5 - Recommendations of necessary Phase II work
- 6 g) Phase I Soil Report
- 7 (1) Summary of soil investigation activities
- 8 (2) Analytical data summary and analysis
- 9 (3) Laboratory reports
- 10 (4) Site plan map with appropriate presentation of
- 11 analytical results
- 12 (5) Schematic subsurface geologic cross sections
- 13 with appropriate presentation of analytical
- 14 results
- 15 (6) Discussion section on relationship of physical
- 16 testing results to the analytical results
- 17 (7) Soil boring logs
- 18 (8) QA/QC Documentation
- 19 (9) Recommendations of necessary Phase II work
- 20 h) Phase I Surface Water and Sediment Report
- 21 (1) Summary of investigative activities
- 22 (2) Site plan map indicating sampling locations
- 23 and appropriate presentation of analytical
- 24 results
- 25 (3) Analytical data summary and analysis
- 26 (4) Laboratory reports
- 27 (5) QA/QC Documentation
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1 (6) Recommendations of necessary Phase II work
2 i) Phase I Air Report
3 (1) Summary of investigative activities
4 (2) Site plan map indicating sampling locations and
5 contaminant level contours
6 (3) Analytical data summary and analysis, including
7 laboratory reports and data validation section
8 (4) Recommendation of necessary Phase II work
9 j) Phase II Sampling and Analysis Plan
10 k) Remedial Investigation Report
11 l) Remedial Alternatives Development Report
12 m) Analysis of Risks for Remedial Alternatives Report
13 n) Remedial Alternatives Screening Report
14 o) Feasibility Study Report
15 Respondents shall revise the draft report in accordance with
16 EPA's comments and shall submit a final report to EPA within
17 thirty (30) days of receipt of the comments. EPA may ask for ad-
18 ditional revisions, as necessary, or it shall approve or modify
19 the report.
20 B. Work Plan Schedule. Within thirty (30) days of the ef-
21 fective date of this Order, Respondents will provide to EPA for
22 review and comment a draft report listing all tasks and
23 deliverables necessary to document completion of the remainder of
24 the tasks listed above, accompanied by a schedule to be met by
25 Respondents in finishing this work. Respondents shall revise the
26 draft report in accordance with EPA comments and shall submit a
27 final report within thirty (30) days of receipt of the comments.
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1 EPA may ask for additional revisions, as necessary, or it shall
2 approve or modify the report.

3 C. Implementation. Within 10 days of the receipt of an ap-
4 proved Work Plan Schedule, Respondents shall begin implementation
5 of the tasks in that schedule.

6 D. Monthly Status Reports. Respondents shall also provide
7 EPA with a Monthly Status Report which shall contain the follow-
8 ing information:

9 (1) A description of progress made during the reporting
10 period

11 (2) A summary of items submitted to EPA under the Order
12 during the reporting period,

13 (3) A list of samples submitted to chemical
14 laboratories, including those for which analyses have been
15 returned, and those for which analyses have not been returned
16 during the reporting period,

17 (4) Results of all sampling and/or tests or other tech-
18 nical data generated by Respondents or on Respondents' behalf
19 during the previous month, and

20 (5) Schedule for sampling for following month.
21 Monthly reports are due by the fifteenth (15) day of the month
22 for the immediately preceding month.

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24 General Requirements

25 A. All work conducted pursuant to this Order shall be con-
26 ducted consistent with all applicable requirements of CERCLA and
27 the National Contingency Plan and shall be conducted in accor-

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1 dance with EPA RI/FS guidance (including, but not limited to, the
2 draft "Guidance for Conducting Remedial Investigations and
3 Feasibility Studies Under CERCLA," March, 1988, or its final
4 version), the standards and specifications contained in the ap-
5 proved RI/FS Work Plan, and in accordance with the schedule in
6 the approved Work Plan Schedule.

7 B. With the exception of Monthly Status Reports, subject
8 only to EPA review and comment, Respondents shall furnish both a
9 draft and final version of each deliverable required by this Or-
10 der and the Work Plan Schedule. Each draft report shall be sub-
11 ject to review and comment by EPA. Each final report shall be
12 subject to review and approval or modification by EPA. EPA
13 shall, as indicated above, review, comment upon, and approve or
14 disapprove each report, document or other deliverable. In the
15 event of any disapproval, EPA shall specify the reasons for such
16 disapproval and recommended modifications.

17 C. EPA may determine that additional tasks, including
18 remedial investigatory work, engineering evaluation, and interim
19 response measures are necessary as part of the RI/FS. Respondents
20 shall implement any additional tasks which EPA determines are
21 necessary as part of the RI/FS or for the Baseline Risk Assess-
22 ment or for the Analysis of Risks for Remedial Alternatives. The
23 additional work shall be completed in accordance with the stan-
24 dards, specifications, requirements, and schedule determined or
25 approved by EPA.

26 D. Documents, including progress and technical reports, ap-
27 provals, disapprovals, and other correspondence to be submitted
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1 pursuant to this Order, shall be sent to the following ad-
2 dressees or to such other addresses as the parties hereafter may
3 designate in writing, and shall be deemed submitted on the date
4 received by EPA or Respondents.

5 E. Six (6) copies of the RI Report (draft and final) and
6 the FS Report (draft and final) and four (4) copies of all other
7 documents to be submitted to EPA shall be sent to:

8 Rob Saunders (T-4-5)
9 Toxics & Waste Management Division
10 US EPA, Region 9
215 Fremont Street
San Francisco, CA 94105
Phone Number: (415) 974-7469

11 One copy shall also be sent to each of the following:

12 Jacobs Engineering Group Inc.
13 251 South Lake Avenue #305
Pasadena, CA 91101

14 Liz Cameron
15 California Regional Water Quality Control Board
San Francisco Bay Region
16 1111 Jackson Street #6000
Oakland, CA 94607

17 Howard Hatayama
18 California Department of Health Services
Toxic Substances Control Division
19 2151 Berkeley Way, Annex 7
Berkeley, CA 94704

20 Lee Esquibel
21 Santa Clara County Health Department
22 2220 Moorpark Avenue
San Jose, CA 95128

23
24 VII. DESIGNATED PROJECT COORDINATORS

25 A. On or before the effective date of this Order, EPA
26 shall designate a Project Coordinator who shall have the
27 authorities, duties, and responsibilities vested in the
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1 Remedial Project Manager by the National Contingency Plan.
2 Respondents shall also designate a Project Coordinator who shall
3 be responsible for overseeing the implementation of this Order.
4 The EPA Project Coordinator will be EPA's designated representa-
5 tive at the Site. To the maximum extent possible, all oral com-
6 munications between Respondents and EPA concerning the activities
7 performed pursuant to this Order shall be directed through the
8 Project Coordinators. All documents, including progress and
9 technical reports, approvals, and other correspondence concerning
10 the activities performed pursuant to the terms and conditions of
11 this Order, shall be delivered in accordance with paragraph VI(D)
12 above.

13 B. EPA and Respondents may change their respective Project
14 Coordinators. Such a change shall be accomplished by notifying
15 the other party in writing at least one week prior to the change.

16 C. Consistent with the provisions of this Order, the EPA
17 Project Coordinator shall also have the authority vested in the
18 On-Scene-Coordinator ("OSC") by the National Contingency
19 Plan, unless EPA designates a separate individual as OSC, who
20 shall then have such authority.

21 D. The absence of the EPA Project Coordinator or OSC from
22 the Site shall not be cause for the stoppage of work.

23

24 VIII. SITE ACCESS

25 To the extent that Respondents requires access to land other
26 than land it owns, Respondents will use their best efforts to ob-
27 tain access agreements for Respondents, their contractors and
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1 agents, EPA, and its contractors and agents, from the present
2 owners or lessees as the need for such access may arise. In the
3 event that Respondents are not able to obtain site access to
4 property owned or controlled by persons or entities other than
5 Respondents, Respondents shall notify EPA promptly regarding both
6 the lack of, and efforts to obtain, such access.

7 IX. SAMPLING, ACCESS, AND DATA/DOCUMENT AVAILABILITY

8 A. Respondents shall use quality assurance, quality con-
9 trol, and chain of custody procedures in accordance with the
10 Quality Assurance Project Plan (QAPP) approved by EPA as part of
11 the RI/FS Work Plan. Respondents shall follow the QAPP
12 throughout all sample collection and analysis activities.

13 B. Respondents shall provide EPA with the results and
14 Quality Assurance/Quality Control (QA/QC) documentation of all
15 sampling and/or tests or other technical data generated by
16 Respondents or on Respondents' behalf with regard to soil, ground
17 water, surface water, or air contamination by hazardous sub-
18 stances, pollutants, or contamination at the Site. Details and
19 documentation of all sampling and analysis data collection com-
20 pleted during the previous month shall be presented in a monthly
21 report.

22 C. At the request of EPA, Respondents shall provide split
23 or duplicate samples to EPA and/or its authorized representatives
24 of any samples collected by Respondents as part of the RI/FS Work
25 Plan. Respondents shall notify EPA of any planned sample collec-
26 tion activity in the preceding monthly report.

27 D. Respondents shall permit EPA and/or its authorized repre-
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1 representatives to have reasonable access at all times to the Site to
2 monitor any activity conducted pursuant to the RI/FS Work Plan or
3 conduct such tests or investigations as EPA deems necessary.

4 E. Respondents shall permit EPA and/or its authorized rep-
5 resentatives to inspect and copy all records, documents, and
6 other writings, including all sampling and monitoring data, that
7 in any way concern soil, ground water, surface water or air con-
8 tamination at the Site.

9 F. Respondents may assert a confidentiality claim, covering
10 part or all of the information requested by this Order pursuant
11 to 40 C.F.R. § 2.203(b). Analytical data shall not be claimed as
12 confidential by Respondents. Information determined to be con-
13 fidential by EPA will be afforded the protection specified in 40
14 C.F.R. Part 2, Subpart B. If no such claim accompanies the in-
15 formation when it is submitted to EPA, it may be made available
16 to the public by EPA without further notice to Respondents.

17 X. RECORD PRESERVATION

18 Respondents shall preserve, during the pendency of this Or-
19 der and for a minimum of six (6) years after termination of this
20 Order, separate central depositories of the records and documents
21 required to be prepared under the Order. If EPA requests that
22 some or all such documents be preserved for a longer period of
23 time, Respondents shall either comply with that request or permit
24 EPA to obtain or copy any such document prior to its destruction.

25 XI. OTHER CLAIMS

26 This Order does not release Respondents from any claim,
27 cause of action or demand in law or equity.

28

1 XII. OTHER APPLICABLE LAWS

2 Respondents shall undertake all actions required by this Or-
3 der in accordance with the requirements of all applicable local,
4 state, and federal laws and regulations, except that, pursuant to
5 Section 121(e) of CERCLA, no federal, state, or local permit
6 shall be required for the portion of any removal or remedial ac-
7 tion conducted entirely onsite, where such action is carried out
8 in accordance with the provisions of this Order.

9
10 XIII. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

11 Respondents shall indemnify and hold the United States
12 Government, its agencies, departments, agents, contractors, and
13 employees, harmless from any and all claims or causes of action
14 arising from or on account of acts or omissions of Respondents,
15 its officers, employees, receivers, trustees, agents, or assigns,
16 in carrying out the activities pursuant to this Order. EPA is
17 not a party in any contract involving the Respondent(s) at the
18 Site.

19 XIV. COMMUNITY RELATIONS/PUBLIC COMMENT

20 EPA will implement a Community Relations Program in accor-
21 dance with Agency policies and guidance documents. Respondents
22 may participate in the community relations activities when deemed
23 appropriate by EPA. Upon receipt of each of the following reports
24 or workplan, the EPA shall make them and other supporting docu-
25 ments available to the public for review and comment during a
26 public comment period pursuant to EPA's community relations
27 policy: the final Remedial Investigation/Feasibility Study
28

1 Workplan, the final Remedial Investigation Report, and the final
2 Feasibility Study Report. A separate public comment period may
3 be held for each report or workplan. As a result, EPA may
4 modify, or require Respondents to modify, the final Remedial
5 Investigation/Feasibility Study Workplan, the final Remedial In-
6 vestigation Report, and the final Feasibility Study Report, in-
7 cluding a response to comments addendum.

8

9

XV. PARTIES BOUND

10 This Order shall apply to and be binding upon Respondents,
11 their officers, directors, agents, employees, contractors, suc-
12 cessors, and assigns. No change in ownership or corporate or
13 partnership status will alter Respondents' obligations under this
14 Order. Respondents shall provide a copy of this Order to all
15 contractors, sub-contractors, laboratories, and consultants
16 retained to conduct any portion of the work performed pursuant to
17 this Order within 14 calendar days of the effective date of this
18 Order or date of such retention.

19

20

XVI. COMPLIANCE WITH OTHER LAWS

21 Respondents shall comply with all federal, state and local
22 laws and regulations in carrying out the terms of this Order. All
23 hazardous substances removed from the facility must be handled in
24 accordance with the Resource Conservation and Recovery Act of
25 1976, 42 U.S.C. § 6921, et seq., the regulations promulgated un-
26 der that Act and EPA's Offsite Disposal Policy.

27

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1 XVII. ENDANGERMENT DURING IMPLEMENTATION

2 The Director, Toxics and Waste Management Division, EPA
3 Region 9, may determine that acts or circumstances (whether re-
4 lated to or unrelated to this Order) may endanger human health,
5 welfare or the environment and may order the Respondents to stop
6 further implementation of this Order until the endangerment is
7 abated.

8 XVIII. NONCOMPLIANCE

9 A. A willful violation or failure or refusal to comply
10 with this Order may subject Respondents to a civil penalty of up
11 to \$25,000 per day in which the violation occurs or failure to
12 comply continues, pursuant to the provisions of Section 106(b)(1)
13 of CERCLA, 42 U.S.C. §9606(b)(1). Failure to comply with this Or-
14 der without sufficient cause may also subject Respondents to
15 punitive damages of up to three times the total costs incurred by
16 the United States for site response pursuant to Section 107(c)(3)
17 of CERCLA, 42 U.S.C. § 9607(c)(3).

18 B. EPA may take over the removal action at any time if EPA
19 determines that Respondents are not taking appropriate action.
20 EPA may order additional actions it deems necessary to protect
21 public health, welfare, or the environment.

22
23 XIX. OPPORTUNITY TO CONFER

24 Respondents may request a conference with the Director,
25 Toxics and Waste Management Division, EPA Region 9, or his staff
26 to discuss the provisions of this Order. At any conference held
27 pursuant to Respondents' request, Respondents may appear in per-

1 son or by counsel or other representatives for the purpose of
2 presenting any objections, defenses or contentions which Respon-
3 dents may have regarding this Order. If Respondents desire such a
4 conference, Respondents must make a request orally within 24
5 hours of receipt of this Order, and confirm the request in writ-
6 ing immediately.

7

8 **XX. NOTICE OF INTENT TO COMPLY**

9 Within twenty four (24) hours of the effective date of this
10 Order, Respondents shall orally inform EPA of their intent to
11 comply with the terms of this Order. The oral notice shall be
12 confirmed within two (2) days by written notice to the Director.
13 Failure to timely notify EPA of the Respondents' intent to comply
14 will be construed by EPA as a refusal to comply.

15

16 **XXI. NOTICE TO THE STATE**

17 EPA has notified the State of California pursuant to the re-
18 quirements of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

19

20 **XXII. TERMINATION AND SATISFACTION**

21 The provisions of the Order shall be deemed satisfied upon
22 receipt of written notice from EPA that Respondents have
23 demonstrated, to the satisfaction of EPA, that all of the terms
24 of this Order, including any additional tasks which EPA has
25 determined to be necessary, have been completed.

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XXIII. EFFECTIVE DATE

A. The effective date of this Order shall be thirty (30) days after the date on which it is signed by EPA.

B. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specification, schedules, and any other writing submitted by Respondents will be construed as relieving Respondents of its obligation to obtain such formal approval as may be required by this Order.

IT IS SO ORDERED:

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY

By: 
Jeff Tevikson
Director,
Toxics and Waste Management Division
Region 9

Date: 12/1/88

Attachs.

Attachment A
Jasco Chemical Corporation

Chemicals found in the soil and groundwater at the Site include the following:

1,1-Dichloroethane (1,1-DCA) has been detected at or near the Site in soil at 34,000 parts per billion (ppb); in water contained in the west dry well at 1,100 ppb; in ground water at 450 ppb; and in ponded surface water at the rear of the Site at 8.6 ppb. The west dry well has since been destroyed. Inhalation exposure to high doses causes central nervous system depression in humans and may cause hepatotoxicity. In animals, high doses cause liver and kidney damage and retarded fetal development. The action level for 1,1-DCA is 20 ppb.

1,1,1-Trichloroethane (1,1,1-TCA) has been detected at or near the Site in soil at 1,500,000 parts per billion (ppb); in water contained in the west dry well at 540 ppb; in ground water at 180 ppb; and in ponded surface water at the rear of the Site at 41 ppb. The west dry well has since been destroyed. Preliminary results suggest that 1,1,1-TCA induces liver tumors in female mice. It was shown to be mutagenic using the Ames assay, and it causes transformation in cultured rat embryo cells. Inhalation exposure to high concentrations of 1,1,1-TCA depressed the central nervous system; affected cardiovascular function; and damaged the lungs, liver, and kidneys in animals and humans. Irritation of the skin and mucous membranes has also been associated with human exposure to 1,1,1-TCA. The maximum contaminant level ("MCL") established under the Safe Drinking Water Act for 1,1,1-TCA is 200 ppb.

1,1-Dichloroethylene (1,1-DCE) has been detected at or near the Site in soil at 13,000 parts per billion (ppb); in water contained in the west dry well at 83 ppb; and in ground water at 75 ppb. The west dry well has since been destroyed. 1,1-DCE caused kidney tumors (in males only) and leukemia in one study of mice exposed by inhalation. 1,1-DCE is mutagenic, causes adverse reproductive effects when administered to rats and rabbits by inhalation, and is classified as a possible human carcinogen. Chronic exposure causes liver damage, and acute exposure to high doses produces nervous system damage. The MCL for 1,1-DCE is 7 ppb.

Methylene chloride has been detected at or near the Site in soil at 3,400,000 parts per billion (ppb); in ponded surface water at the rear of the Site at 470 ppb; and in ground water at 31 ppb. Methylene Chloride increased the incidence of lung, liver, and mammary tumors and sarcomas in rats and mice. It was found to be mutagenic in bacterial test systems. In humans, methylene chloride is classified as a probable human carcinogen and irritates the eyes, mucous membranes, and skin. Exposure to high levels adversely affects the central and peripheral nervous systems and the heart. In experimental animals, methylene chloride is reported to cause kidney and liver damage, convulsions, and paresis.

Chloroethane has been detected at or near the Site in water contained in the west dry well at 1000 parts per billion (ppb); and in ground water at 13 ppb. The west dry well has since been destroyed. Chloroethane caused headaches and dizziness in workers exposed to high levels. It causes kidney damage, liver changes, and upset cardiac rhythm in chronically exposed animals. The action level for chloroethane is 20 ppb.

1,2-trans-Dichloroethylene (1,2-trans-DCE) has been detected at or near the Site in soil at 4,800 parts per billion (ppb); and in ground water at 4.8 ppb. Chronic inhalation exposure to 1,2-trans-DCE causes liver degeneration in rats; and exposure to high vapor concentrations has adverse effects on the central nervous system in humans. The action level is 16 ppb; the proposed MCL is 70 ppb.

Toluene has been detected at or near the Site in soil at 1,700,000 parts per billion. Toluene has been shown to be embryotoxic in experimental animals, and the incidence of cleft palate increased in the offspring of dosed mice. Chronic inhalation exposure to high levels of toluene caused cerebellar degeneration and an irreversible encephalopathy in animals. In humans, acute exposure depressed the central nervous system and caused narcosis.

Carbon tetrachloride has been detected at or near the Site in soil at 680,000 parts per billion. Carbon tetrachloride is classified as a probable human carcinogen. In animals, carbon tetrachloride is a carcinogen; causing liver tumors in mice, rats, and hamsters. Carbon tetrachloride causes liver and kidney damage in animals and humans. The action level is 40 ppb.

Xylenes have been detected at or near the Site at 210,000 parts per billion. Xylenes have been shown to be fetotoxic in rats and mice. In humans, exposure to high concentrations of xylenes adversely affects the central nervous system and irritates the mucous membranes.

Ethylbenzene has been detected at or near the site in soil at 170,000 parts per billion. There is some evidence suggesting that ethylbenzene causes adverse reproductive effects in animals. Oral and inhalation exposure caused minor liver and kidney changes in rats. Ethylbenzene is a skin and eye irritant.

1,2-Dichloroethane (1,2-DCA) has been detected at or near the Site in soil at 17,000 parts per billion. Exposure by inhalation has been shown to adversely affect the central nervous system, cause irritation of the mucous membranes, and to cause kidney and liver dysfunction in humans. Dermatitis may be produced by skin contact. 1,2-DCA is carcinogenic in animals and mutagenic in bacterial test systems; it is classified as a probable human carcinogen.

Tetrachloroethylene (PCE) has been detected at or near the Site in soil at 17,000 parts per billion. PCE induced liver tumors when administered orally to mice and was found to be mutagenic using a microbial assay system. Reproduction toxicity was observed in pregnant rats and mice exposed to high concentrations. Animals exposed by inhalation to PCE exhibited liver, kidney, and central nervous system damage.

Chloroform has been detected at or near the Site in soil at 2,300 parts per billion. Chloroform caused an increase in kidney epithelial tumors in rats and in hepatocellular carcinomas in mice. Chloroform is classified as a probable human carcinogen and there is suggestive evidence from epidemiological studies that exposure to chloroform and other trihalomethanes is associated with an increased incidence of bladder tumors in humans. An increased incidence of fetal abnormalities was reported in offspring of pregnant rats exposed to chloroform by inhalation, and there are limited data suggesting that chloroform was mutagenic in some test systems. Other toxic effects of chloroform include central nervous system depression; eye, skin, and gastrointestinal irritation; and damage to the liver, heart, and kidney.

Trichloroethylene (TCE) has been detected at or near the Site in soil at 490 parts per billion. TCE is classified as a probable human carcinogen. TCE induced hepatocellular carcinomas in mice and was mutagenic when tested using several microbial assay systems. Chronic inhalation exposure to high concentrations caused liver, kidney, and neural damage and dermatatological reactions in animals.

Pentachlorophenol (PCP) has been detected at or near the Site in soil at 200 parts per billion (ppb) and in ground water at 50 ppb. PCP is embryotoxic and fetotoxic. Chronic exposure has been shown to cause chloracne, headache, muscle weakness, weight loss, and liver and kidney damage.

P 765 056 556

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Harry Anthony	
Street and No	
1710 Chemical Corporation	
P.O. State and ZIP Code	
Mountain View, CA 94042	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom Date and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS Form 3800, June 1985

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

☒ Show to whom, date and address of delivery.

☒ Restricted Delivery.

3. Article Addressed to:

Harry Anthony
Jasco Chemical Corporation
1710 Villa Street
Mountain View, CA 94042

4. Type of Service:

☒ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail

Article Number

P 765 056 556

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee

6. Signature - Agent

X

7. Date of Delivery

DEC 27 1988

8. Addressee's Address (ONLY if requested and for)

DOMESTIC RETURN RECEIPT

P 007 796 805

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, Feb. 1982 * U.S.G.P.O. 1984-446-014	Sent to		Max Anthony
	Street and No.		1710 Villa Street
	P.O., State and ZIP Code		Mountain View, CA 94042
	Postage	\$	
	Certified Fee		
	Special Delivery Fee		
	Restricted Delivery Fee		
	Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery			
TOTAL Postage and Fees		\$	
Postmark or Date			

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.

2. ☐ Restricted Delivery

3. Article Addressed to:
Max Anthony
Jasco Chemical Corporation
1710 Villa Street
Mountain View, CA 94042

4. Type of Service:

☒ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail

Article Number

P 007 796 805

Always obtain signature of addressee or agent and
DATE DELIVERED.

5. Signature - Addressee

X

6. Signature - Agent

X

7. Date of Delivery

DEC 27 1988

8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT